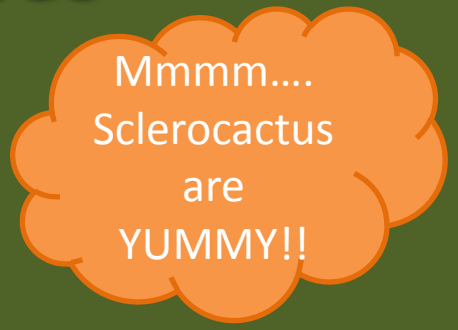
Conservation Measures for Special Status Plant Species



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Vernal Field Office – Bureau of Land Management

Overview

Where do the Conservation Measures come from????

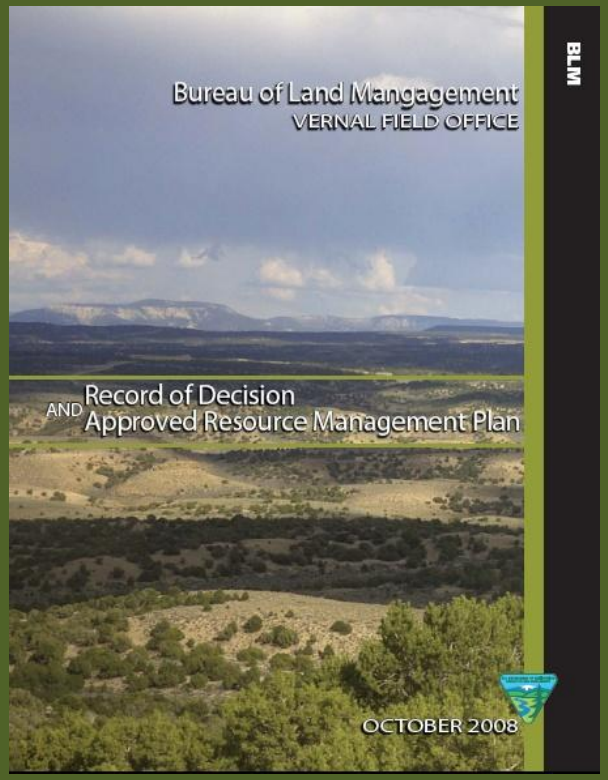
&

What do they say???

Conservation measures Outlined in the Vernal Field Office Resource Management Plan (RMP)

- RMP finalized in 2008

- When oil and gas resources are developed, the RMP conservation measures MUST BE followed for 5 species….



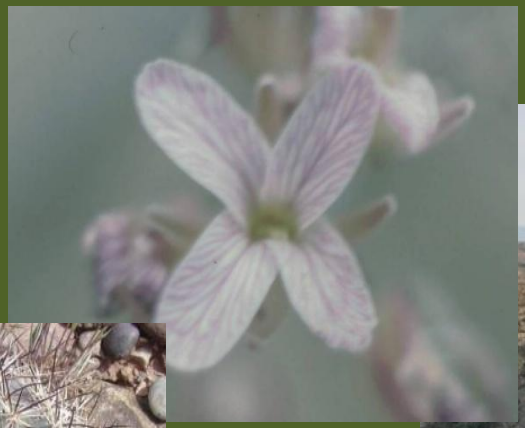
Pariette cactus (*Sclerocactus brevispinus*)

Uinta Basin hookless cactus (*Sclerocactus wetlandicus*)

clay reed-mustard (*Schoencrambe argillacea*)

shrubby reed-mustard (*Schoencrambe suffrutescens*)

Ute ladies'-tresses (*Spiranthes diluvialis*)



… White River penstemon *(Penstemon scariosus var. albifluvis)* and Graham's penstemon *(Penstemon grahamii)* too!

(though not in RMP, candidate and proposed species and conservation agreement)

Purpose of Cons. Measures

- Avoid or minimize impacts from oil and gas exploration and development
- Ensure compliance with the Endangered Species Act (ESA)
- Prevent listing of special status species (Graham's penstemon, White River Penstemon)

Six Conservation Measures

- 6 conservation measures for each of the 5 species (AKA “avoidance and minimization” measures)
- Graham’s penstemon conservation measures outlined in conservation agreement

Some Special Status Plants Require Special Protection

Read and Understand SPECIES SPECIFIC conservation measures outlined in the RMP

Special Status Species
Habitat definitions:

1. Potential
   - areas which satisfy the broad criteria of the species habitat description, usually determined by preliminary, in-house assessment

2. Suitable
   - areas which contain or exhibit the specific components or constituents necessary for plant persistence; determined by field inspection and/or surveys; may or may not contain clay reed-mustard; habitat descriptions can be found in Federal Register Notices and species recovery plan links at http://www.fws.gov/engdangered/wildlife.html

3. Occupied
   - areas currently or historically known to support that species, includes 300 foot buffer around known individuals; synonymous with known habitat

The BLM and the Service developed the following measures to minimize effects to federally listed species and ensure that activities carried out during oil and gas development are in compliance with the Endangered Species Act (ESA)

Step 1: Pre-project assessment

Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat to determine if suitable habitat is present.

Step 2: Suitable habitat surveys

Site inventories to determine special status species occupancy within suitable habitat MUST:

a. Be conducted by qualified individuals,
b. Include ALL suitable habitat, usually during flowering,
c. Include all area within 300 feet of disturbance
d. Include plant species lists and habitat

USUALLY REMAIN VALID ONE YEAR!!

survey dates

Species	Usual Start	Usual End	Survey valid until
clay reed-mustard	May 1	June 5	Start of next flowering season
shrubby reed-mustard	April 15	August 1	
Pariette cactus	March 15	June 30	
Uinta Basin hookless cactus	Any time of year, provided there is no snow cover		One year from survey date
Ute ladies'-tresses	August 1	August 31	Start of next flowering season
Graham's penstemon	April 15	May 20	

Step 3: Minimize infrastructure

Design project infrastructure to minimize impacts within suitable habitat:

a. **Reduce size** of well pad
b. **Limit** new access routes
c. **Use common** ROWs utilities and roads
d. **Reduce width** of ROWs
e. **Post signs** to limit off-road travel
f. **Stay** on designated routes
g. **Revegetate** with native species

Step 4: Within occupied habitat

Within occupied habitat, project infrastructure will be designed to minimize impacts to populations and individual plants:

a. Complete Step #3
b. Maintain 300' buffer
c. Stabilize surface pipelines
d. Mark avoidance areas
e. Directional drilling
f. Avoid erosion/water flow
g. Store produced water away from occupied habitat
h. Minimize disturbed area with interim reclamation

Step 5: Three-year monitoring

Occupied habitats within 300 feet of disturbance shall be monitored for 3 years after ground disturbing activities.

Permitee's Responsibility:

- Annual surveys
- Reports to BLM and the Service

BLM and Service's Responsibility:

- Evaluate implemented Conservation measures

Step 6: Reinitiation clause

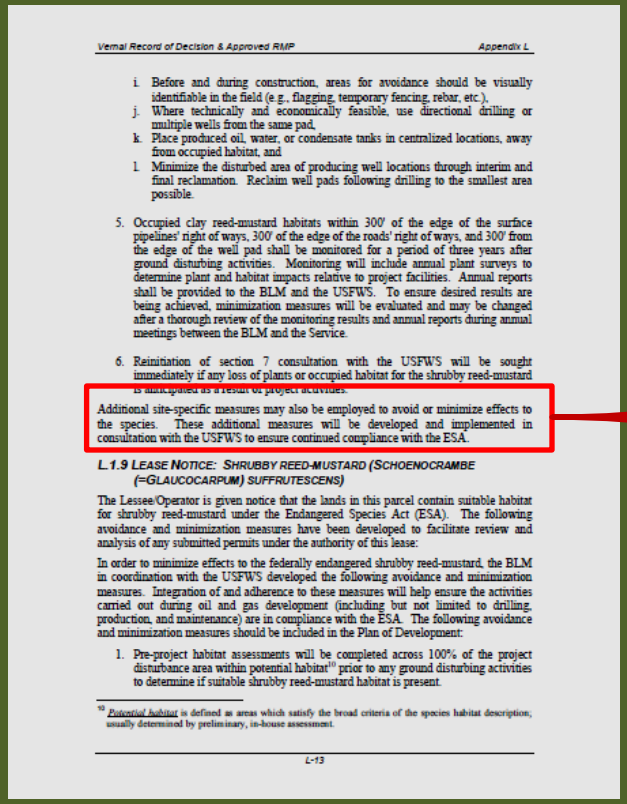
If you anticipate

that plants or occupied habitat will be lost
during project activities

IMMEDIATELY

Reinitiate section 7 consultation with the Service!!!!

Concluding Paragraph



Vernal Record of Decision & Approved RMP *Appendix L*

i. Before and during construction, areas for avoidance should be visually identifiable in the field (e.g., flagging, temporary fencing, rebar, etc.).
j. Where technically and economically feasible, use directional drilling or multiple wells from the same pad.
k. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat, and
l. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible.

5. Occupied clay reed-mustard habitats within 300' of the edge of the surface pipelines' right of ways, 300' of the edge of the roads' right of ways, and 300' from the edge of the well pad shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the USFWS. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service.

6. Reinitiation of section 7 consultation with the USFWS will be sought immediately if any loss of plants or occupied habitat for the shrubby reed-mustard is anticipated as a result of project activities.

Additional site-specific measures may also be employed to avoid or minimize effects to the species. These additional measures will be developed and implemented in consultation with the USFWS to ensure continued compliance with the ESA.

L.1.9 LEASE NOTICE: SHRUBBY REED-MUSTARD (SCHOENOCRAMBE (=GLAUCOCARPUM) SUFFRUTESCENS)

The Lessee/Operator is given notice that the lands in this parcel contain suitable habitat for shrubby reed-mustard under the Endangered Species Act (ESA). The following avoidance and minimization measures have been developed to facilitate review and analysis of any submitted permits under the authority of this lease:

In order to minimize effects to the federally endangered shrubby reed-mustard, the BLM in coordination with the USFWS developed the following avoidance and minimization measures. Integration of and adherence to these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance) are in compliance with the ESA. The following avoidance and minimization measures should be included in the Plan of Development:

1. Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat[10] prior to any ground disturbing activities to determine if suitable shrubby reed-mustard habitat is present.

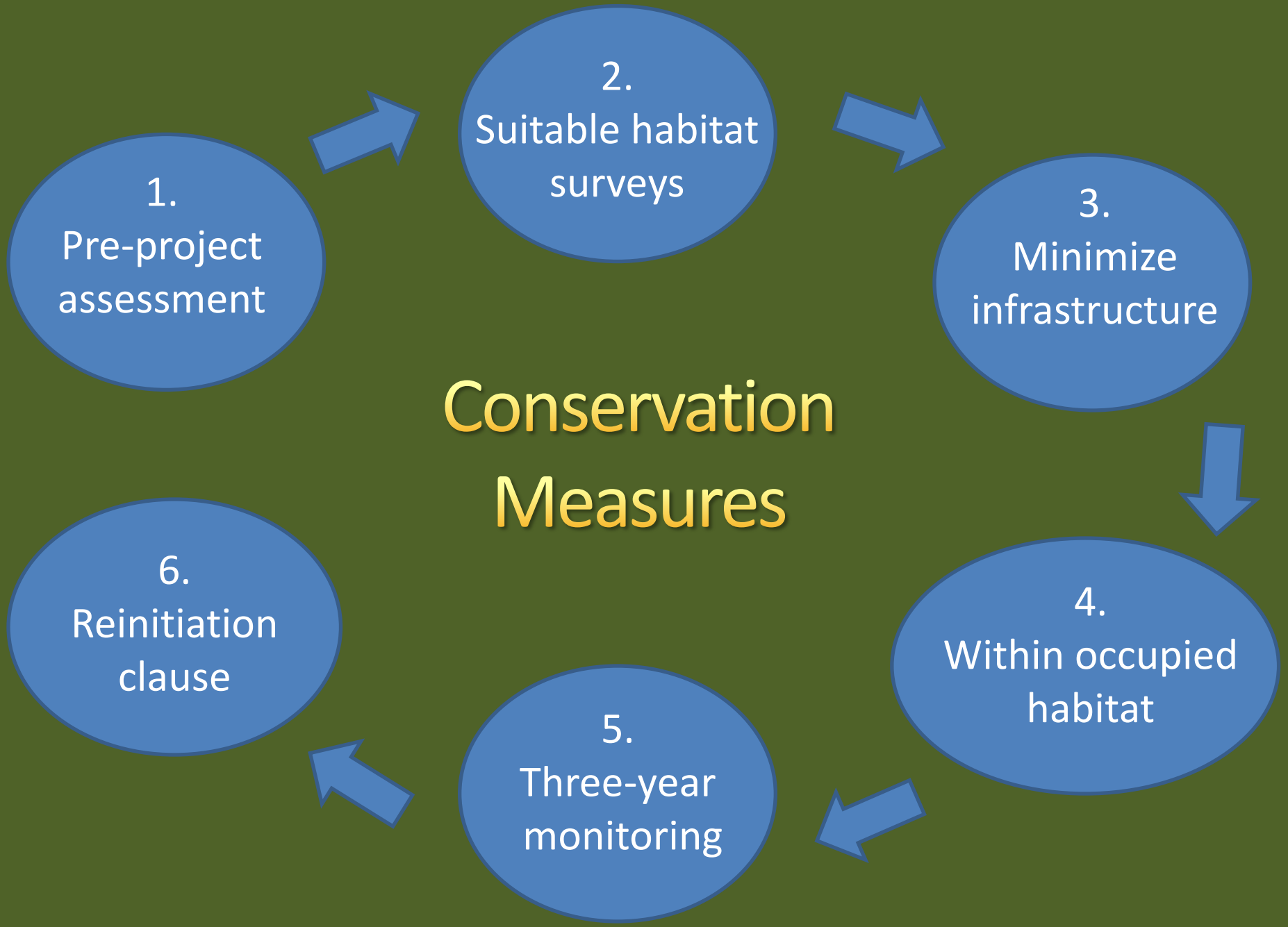
[10] *Potential habitat* is defined as areas which satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment.

L-13

Additional site-specific conservation measures may be used to avoid or minimize effects.

These will be determined during consultation.

Conservation Measures



websites

Species information:

http://www.fws.gov/endangered/

RMP:

http://www.blm.gov/ut/st/en/fo/vernal/planning/rmp/rod_approved_rmp.2.html

Sclerocactus mitigation fund

3-year monitoring to date:

not able to draw reliable conclusions

- Need long term, range-wide study for monitoring response to effects

Utah Pariette Cactus and Uinta Basin Hookless Cactus Mitigation Fund

"The National Fish and Wildlife Foundation (NFWF) is a 501(c)(3) non-profit that … directs public conservation dollars to the most pressing environmental needs and matches those investments with private funds."

Fund purpose: establish a mitigation fund to receive money for conservation activities

- Companies contribute to mitigation fund one time for project
  - Released from future monitoring obligations
  - Calculation based on amount and quality of habitat disturbed (but still needs refining)
- List of fund contributors
- May be on “research board” if condition of biological opinion

What will the fund be used for?

- Continuation of range-wide monitoring program for both *Sclerocactus* species (plots established in 2012)
- Other projects started in 2012 with other money, expand in 2013:
  - Dispersed development study
  - Pollinator and genetics work
  - Enhanced reclamation study